

103,409

PATENT



SPECIFICATION

*Application Date, May 12, 1916. No. 6815/16.*

*Complete Left, Nov. 9, 1916.*

*Complete Accepted, Jan. 25, 1917.*

PROVISIONAL SPECIFICATION.

**Improvements relating to Weighing Machines.**

We, FREDERICK AUGUSTUS BOOTH, Managing Director, JOSEPH FRANCIS SOUTHERTON, Manager, and DAY & MILLWARD LIMITED, Manufacturers, all of Suffolk Street, in the City of Birmingham, do hereby declare the nature of this invention to be as follows:—

- 5 This invention relates to weighing machines of the type in which an equal armed beam pivoted at the centre is weighted below the central fulcrum so that the beam can oscillate about the position of balance.

- The invention comprises a central extension beneath the beam which acts in conjunction with a fixed pointer, the extension being graduated to indicate  
10 the excess or deficiency of weight on either end of the beam when the latter comes to rest in a position other than that of correct balance.

Further, the invention comprises the general arrangement hereinafter described.

- In one manner of carrying the invention into effect, an equal armed beam is pivoted on the upper end of a central column. At one end is attached the weight  
15 pan and at the other the goods receptacle, these being suspended from usual knife edge bearings. At the underside of the beam is provided a central depending extension which at its lower end is made in the form of an arc and is suitably graduated. A fixed pointer on the column is arranged in conjunction with the graduations.

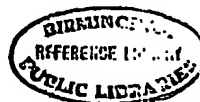
- 20 The weight pan is provided with a guide frame carrying above the frame a dash pot, and the piston of the latter is attached to the upper end of the members by which the pan is suspended. The goods receptacle may be of any desired form.

- A machine as above described is especially suitable for weighing operations  
25 in which it is required to detect inaccuracies of weight as in the manufacture of explosive shell bodies, the scale being graduated to indicate the amount of the excess or deficiency.

Dated this 11th day of May, 1916.

MARKS & CLERK.

[Price 6d.]



## COMPLETE SPECIFICATION.

## Improvements relating to Weighing Machines.

We, FREDERICK AUGUSTUS BOOTH, Managing Director, JOSEPH FRANCIS SOUTHERTON, Manager, and DAY & MILLWARD LIMITED, Manufacturers, all of Suffolk Street, in the City of Birmingham, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

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This invention relates to weighing machines of the type in which an equal armed beam pivoted at the centre is weighted below the central fulcrum so that the beam can oscillate about the position of balance.

The invention comprises the combination of parts as hereinafter described and claimed.

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In the accompanying sheet of explanatory drawings :—

Figure 1 is a side elevation and Figure 2 an end elevation of a shell weighing machine constructed in accordance with this invention.

In carrying the invention into effect, an equal armed beam *a* is pivoted on the upper end of a central column *b*. At one end is attached the weight pan *c* and at the other the goods receptacle *d*; these being suspended from usual knife edge bearings. At the underside of the beam is provided a central depending extension *e* which at its lower end is made in the form of an arc and is suitably graduated. A fixed pointer *f* on the column is arranged in conjunction with the graduations.

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The weight pan *c* is provided with a guide frame *g* carrying above the frame a dash pot *h*, and the piston of the latter is attached to the upper end of the members *i* by which the pan is suspended. The goods receptacle may be of any desired form.

A machine as above described is especially suitable for weighing operations in which it is required to detect inaccuracies of weight as in the manufacture of explosive shell bodies, the scale being graduated to indicate the amount of the excess or deficiency.

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Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is :—

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The combination in weighing machines of the type described, of a central extension beneath the beam provided with scale graduations, a pointer fixed on the beam supporting column for use in reading such graduations, and a dash pot arranged between the beam and the weight pan of the machine, substantially as described and as illustrated.

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Dated this 4th day of November, 1916.

MARKS & CLERK.

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103,409. BROOTE & others' COMPLETE SPECIFICATION.

1 SHEET

[This Drawing is a reproduction of the Original on a reduced scale.]

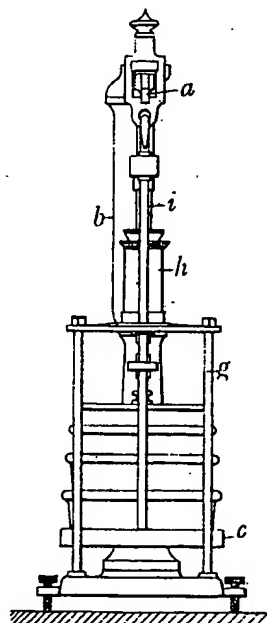


Fig. 2

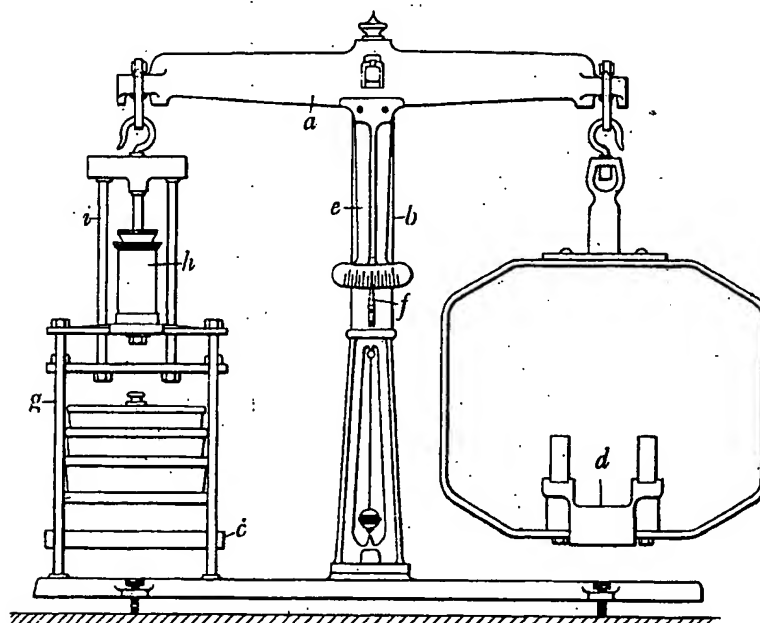


Fig. 1



Multiple Views, Patent Office

*[This Drawing is a reproduction of the Original on a reduced scale.]*

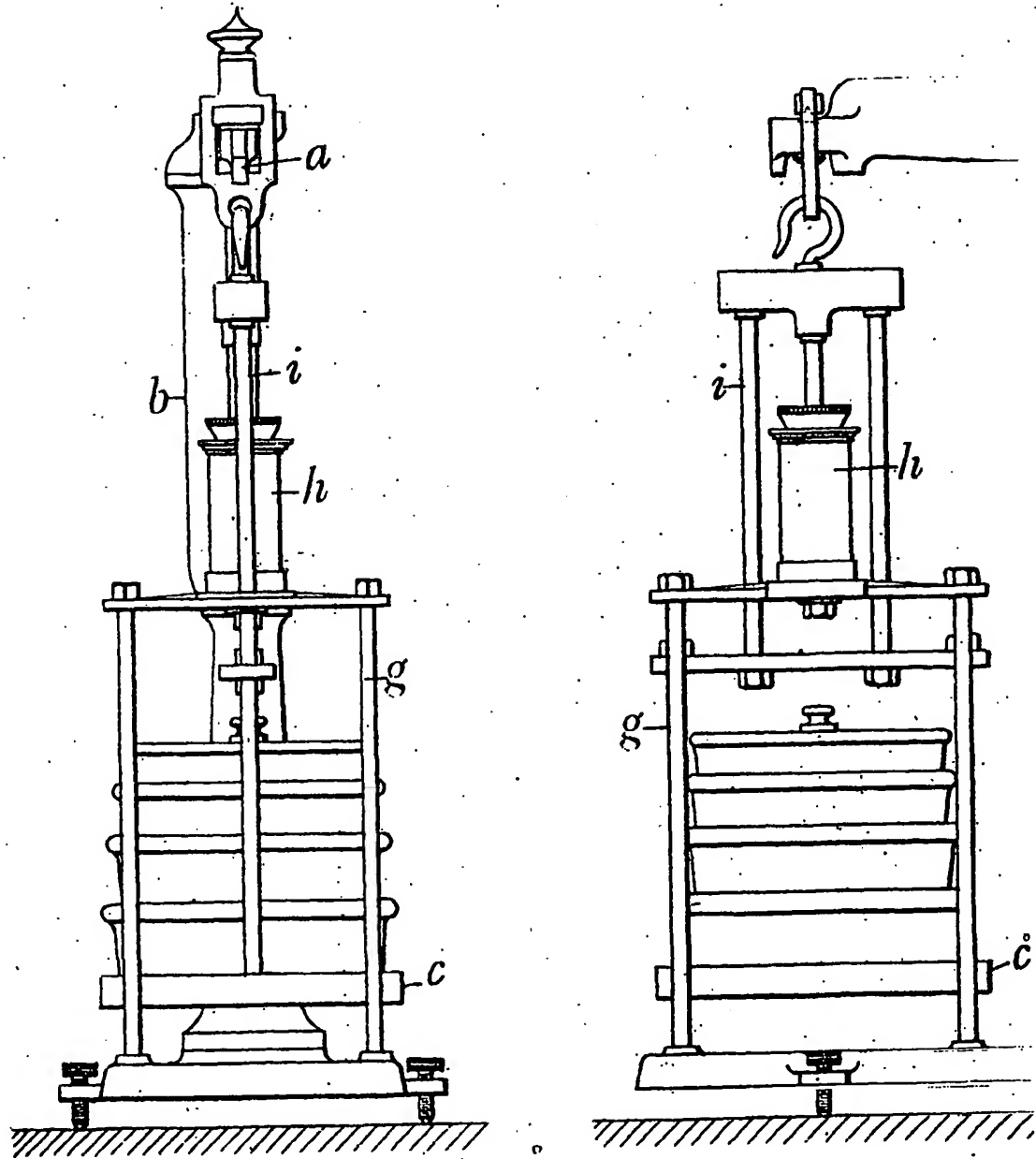


Fig. 2

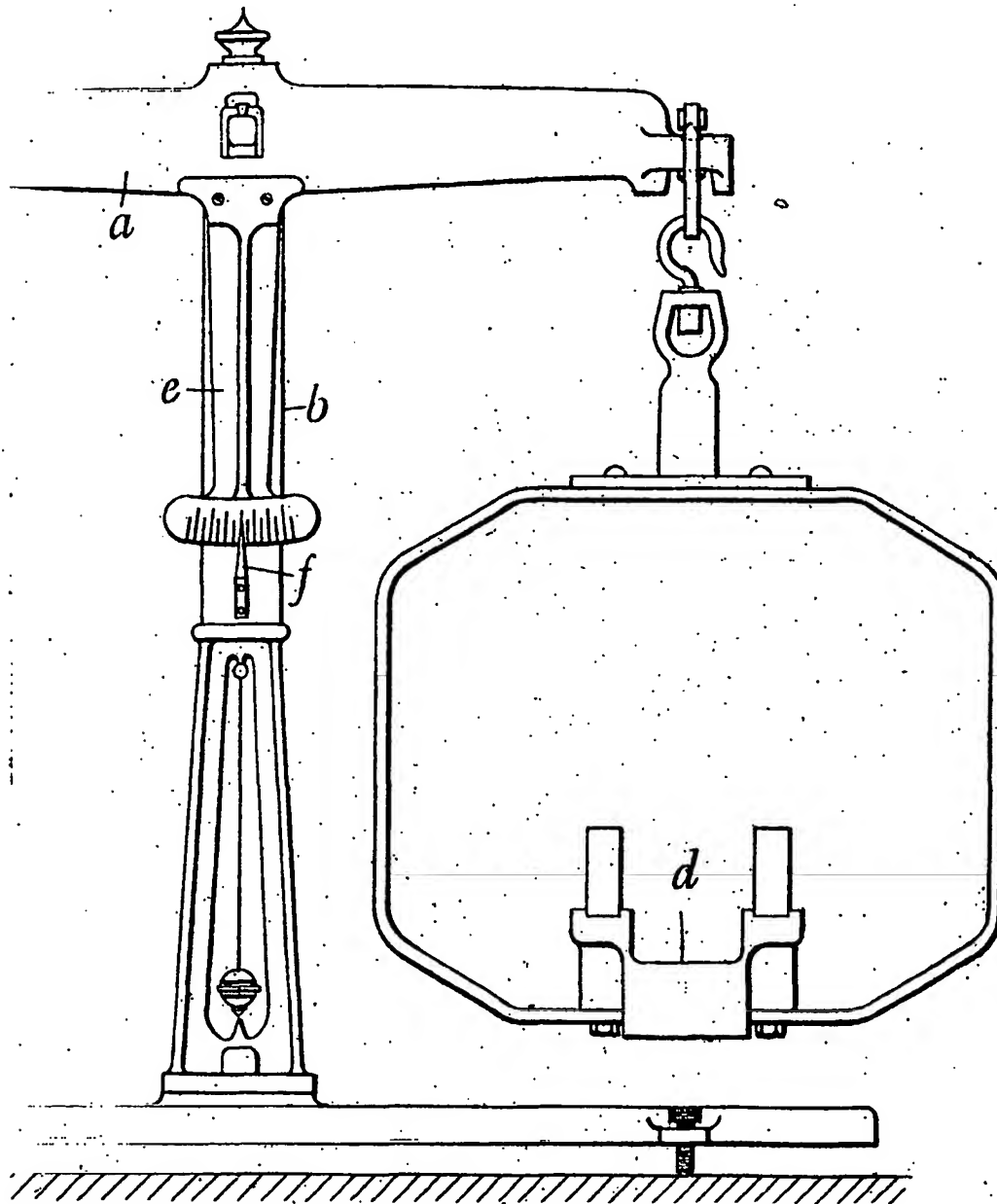


Fig.1

